

Virginia Saltwater Development Fund Evaluation of a Proposal for the Development of a Research or Data Collection Project

Project Number: 0608-07

Date: 5 Sept. 08

Title: G) Use of Pop-Up Satellite Archival Tags (PSATs) to Determine the Fate, Movements, and Habitat Utilization of Red Drum Released from Virginia's Recreational Fishery

“The Virginia Saltwater Recreational Fishing Development Fund is to be used solely for the purpose of conserving and enhancing finfish taken by recreational anglers, enforcing laws related to natural resource conservation, improving recreational fishing opportunities, obtaining necessary data and conducting research for fisheries management, and creating or restoring habitat for species taken by recreational fishermen.”

Code of Virginia, Section 28.2-302.3

NOTE: Please read the entire scoresheet before beginning, then provide comments, and circle () the appropriate score for each item. Thank You.

A. Problem Description and Resolution (20 points)

1. Comment on the adequacy of the problem description, background information, knowledge of available literature/data sources, and anticipated benefits.

The problem description and background information is very complete; the researcher's knowledge of literature and data sources is excellent. Any one of the expected benefits proposed by the project would be worthwhile gains.

2. Describe your views on the conceptual approach to solve the problem.

The conceptual approach seems very sound (especially in light of the inshore tagging results of large striped bass this past winter). I am left wondering how this project will allow the researchers to “gain a new perspective on the relative importance of post-release mortality (yes, and this alone is enough to warrant the project) and tag shedding for adult red drum.” Do the researchers assume these are the only two components for the observed low return rate of tagged adult red drum? The project does not clearly state how new information regarding tag shedding rates of steel dart tags (the most commonly used tag for large fish) in adult red drum will be produced. Is the assumption that only two possible causes for the low tag return rate for adult red drum (hooking mortality or tag loss) exist?

SCORE (Circle one)	Poor				Excellent
	0	5	10	15	20

B. Soundness of Project Design/Technical Approach (25 points)

1. Is there sufficient information to technically evaluate the proposal?

Yes, very complete.

2. What are the strengths/weaknesses of the project design (thoroughness, practicality, methods, integration with other work, etc.)?

The VIMS facility and P.I. are innate strengths of the proposed project. The project benefits from a progression of successful investigations using PSATs. Each tag has the potential to yield a large volume of detailed information on red drum habitat utilization. Additionally, the fate of the tagged fish (i.e. hooking mortality) will be determined.

The major weakness is that the sheer cost per tag precludes the deploying of large numbers of tags. Additionally, it is not clear how the project will provide direct evidence of historic steel dart tag shedding.

SCORE (Circle One)	Poor				Excellent
	0	5	10	15	20 25

C. Project Management and Experience/Qualifications of Personnel (15 points)

What is your opinion of the experience and capabilities of the Principal Investigator(s) to manage and conduct the work, the availability of facilities, and education and experience of assisting personnel.

Excellent.

SCORE (Circle one)	Poor			Excellent
	0	5	10	15

D. Project costs (15 points)

Is the budget realistic and reasonable? Indicate any unreasonable costs.

Given the cost of the disposable supplies, the proposed project's costs seem reasonable (travel costs even seem a bit low). However, Section IV. Estimated Cost, states the

proposal covers the cost “of this one year pilot project.” Can the P.I. provide some estimation of costs to deliver the expected benefits listed on the first page of the project application? Will this pilot project deliver these benefits?

SCORE (circle One)	Poor				Excellent
	0	5	7.5	10	15

E. Value of the Project to Fisheries Managers (25 points)

Do you believe the results of this project will further management of the species described? Will the results be useful to managers?

This project has the potential to provide significant insight into the habitat selection of mature drum, in addition to movement information. The study will give fishery managers a measurement of hooking and release mortality—especially important since the current Red Drum FMP does not allow any retention of fish greater than 28 inches (Virginia’s maximum size is 26 inches) but does not discourage catch-and-release fishing.

SCORE (circle one)	Poor					Excellent
	0	5	10	15	20	25

PLEASE ADD ANY FURTHER COMMENTS ON THE PROPOSALS BELOW:

The “catch-ability” index for large red drum may be very low for significant periods of time due to habitat selection, among other things. The estimated recreational catch of red drum from 2000 through 2007, cited in the proposal, is for all sizes of fish. The recreational catch of large red drum is a relatively rare event, much like that of cobia. Table 1 of the proposal lists the number of large red drum (30 to 53 inches TL) tagged and recaptured each year from 1995 through 2007. The number of the tagged drum is less than 300 in each year except 2007 and less than 100 fish were tagged in six of the years. If the population size of adult red drum is large and the capture of these individuals is a rare event, the resulting calculated recapture rate of tagged fish will be low independent of tag loss or hooking mortality. Interestingly, 2007, which had the largest number of adult red drum tagged (over 1,000), produced the lowest recapture rate (where one could be calculated).